CLAIMS

1/ Surgical ring (1), designed to be implanted in the body of a patient around (a) biological organ(s) forming a pouch or a duct, in order to modify the cross-sectional area of the passage of said organ when it is tightened by the ring, said ring (1) comprising a flexible band (2), comprising first and second extremities (3, 4), said flexible band (2) being designed to be closed near these two extremities (3, 4) by a closure system to form a closed ring, said closed ring having an internal contact surface (2A) with the biological organ and an opposite external surface (2B), characterized in that the closure system comprises a means of encircling (5) united to the first extremity (3) and arranged to evolve between:

- a de-latching configuration where the means of encircling (5) forms an open collar freeing the second extremity (4), and
- a latching configuration where the means of encircling (5) forms a closed collar designed to surround the second extremity (4) so as to unite it with the first extremity (3), said closed collar presenting opposite front (8) and rear sides (7), between which an encircling opening extends, which is designed to accept the second extremity (4).

2/ Surgical ring (1) according to claim 1, characterized in that the means of encircling (5) is arranged so as to pass reversibly between the de-latching and the latching configurations.

3/ Surgical ring (1) according to claim 1 or 2, characterized in that the means of encircling (5) comprises a male element (8) and a female element (9), each of which is mounted integrally to the first extremity (3) and mounted on or relative to the latter in such a way that, when they are connected together, the means of encircling (5) is latched, forming the closed collar.

4/ Surgical ring (1) according to claim 3, characterized in that the female element (9) comprises an orifice (9A) through its full thickness, between

opposite first and second sides (9B, 9C), whereas the male element (8) comprises a tab designed to be slid into orifice (9A), said tab being provided with a means of blockage (8A, 8B) which works in conjunction with orifice (9A).

5/ Surgical ring (1) according to claim 4, characterized in that tab (8) features a link extremity (10) attached to the external surface of the ring (1) and a free extremity (11), the female element (9) being likewise attached to the external surface of the ring with regard to the tab (8), in such a way as the closed collar extends towards the exterior of the ring (1).

6/ Surgical ring (1) according to claim 4 or 5, characterized in that tab (8) comprises, on the one hand, a first means of support (8A), which forms a first means of blocking and is designed to act as a support against peripheral edge (13) of orifice (9A) on the first side (9B) of female element (9) and, on the other hand, a second means of support (8B) which forms the second means of blocking and is designed to act as a support against the peripheral edge of orifice (9A) on the second side (9C) of female element (9), said second means of support being shaped to cooperate with orifice (9A) like a cam in a bearing, said first and second means of support (8A, 8B) being arranged relative to each other so that, in latch configuration, they are tightened around the female element (9) so as to ensure a stable latching configuration.

7/ Surgical ring (1) according to claim 6, characterized in that tab (8) features, on the one hand, a shoulder (8A), which defines a support surface forming a first means of support, and, on the other hand, a flexible extension (8B) forming a second means of support, the free extremity (11) of tab (8) being shaped so as to act as the first prehension support, said first prehension support allowing tab (8) and flexible extension (8B) to pass through orifice (9A), so as to form the closed collar.

8/ Surgical ring (1) according to one of claims 4 to 7, characterized in that tab (8) has a chamfered profile to facilitate its introduction and passage into orifice (9A).

9/ Surgical ring (1) according to one of claims 5 to 8, characterized in that ring (1) features a second prehension support (15) which extends near the extremity of link (10) of tab (8), said second prehension support (15) permitting holding ring (1) during the process of separating the male (8) and female (9) elements, carried out so as to open the ring (1).

10/Surgical ring (1) according to one of claims 5 to 9, characterized in that the female element (9) features a third prehension support (9) which permits separation of male and female elements, so as to open the ring (1).

11/Surgical ring (1) according to one of the preceding claims, characterized in that the second extremity (4) of ring (1) is provided with a first means of stopping (16) designed to thrust against the rear face (7) of the closed collar surrounding the second extremity (4) of the ring in latching configuration, so as to prevent the shifting of the second extremity (4) in the opening direction of ring (1).

12/Surgical ring (1) according to one of the previous claims, characterized in that the second extremity (4) of ring (1) is provided with a second means of stopping (17), designed to thrust against the front face (6) of the closed collar surrounding the second extremity (4) of ring (1) in latching configuration, so as to prevent shifting of the second extremity (4) in the closing direction of ring (1).

13/Surgical ring (1) according to claims 10 and 11, characterized in that said first and second means of stopping (16, 17) are arranged relative to each other so as to tighten the closed collar (5) between them in the latching

configuration, so as to substantially prevent any shifting of the second extremity (4) relative to the first extremity (3).

14/Surgical ring (1) according to one of the preceding claims, characterized in that flexible band (2) features a portion of reduced cross-sectional area (18) at the level of the second extremity (4) of ring (1), said portion (18) being designed to be lodged laterally in a recess (19B), of a shape complementarily arranged at the level of the first extremity (3), said recess (19) forming part of the closed collar in latching configuration, so as to ensure continuity of the internal surface (2A) of ring (1).

15/Surgical ring (1) according to one of claims 11 to 13 and according to claim 14, characterized in that flexible band (2) features a shoulder (17) at the level of the transition of the portion of reduced cross-section (18), said shoulder (17) acting as a second means of stopping.

16/Ring (1) according to one of the preceding claims, characterized in that the flexible band (2) and the closure system (5) form a single piece made of the same material.

17/Ring (1) according to one of the preceding claims, characterized in that it comprises a system (19, 23, 26, 27, 28) to reversibly control the variation of its internal perimeter, said system (19, 23, 26, 27, 28) comprising a flexible filiform element (19) inserted longitudinally and by sliding into the material (24) forming the body of ring (1), substantially between the first and second extremities (3, 4) so as to define a fixed portion (19A) united to the first extremity (3) and a free portion (21) functionally associated with an actuator (23) mounted on ring (1), such that actuator (23) can ensure reversible translation of flexible filiform element (19) so as to obtain an associated variation of the diameter of ring (1).

18/Ring (1) according to claim 17, when it depends on claim 11, characterized in that actuator (23) is arranged on ring (1) to constitute the first means of stopping (16) or to be associated with it.

19/Ring (1), according to one of the preceding claims, characterized in that it is formed of a gastric ring designed to be implanted around the stomach or esophagus.

20/Ring (1) according to one of claims 1 to 18, characterized in that it consists of a ring designed to be implanted around the bladder or urinary tract, or around the gastro-intestinal tracts, or around blood vessels.